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ABSTRACT

This study examines social comparison processes occurring in the interactions among normal adolescents in peer groups. Eight types of social comparison processes were predicted. Two of these, specific to adolescent developmental processes, are new. The experimental design called for behavioral observation documenting occurrence of social comparison processes in discussion groups. Those participating were male adolescents from the top one third of the senior class of a city-wide academic high school for boys. Students were similar in stable home background, normal developmental progress, and goal orientation; they differed in ethnic, religious, and socioeconomic background. Each group included two representatives of high, medium, and low predetermined status. Discussion time was equally divided among four topics pretested for relevance to adolescent achievement and value concerns. A bulletin board observation afforded a behavioral counterpart to verbal comparisons. Prediction of occurrence of eight categories of comparison behavior was confirmed. Findings are examined in relation to frequency of occurrence of each type, who was selected for comparison, influence of discussion topic on type of comparison category occurring, extent of achievement and/or value concerns. Importance of function of comparison behavior in peer groups is discussed. (Author)

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Social Comparison Processes Among Adolescents in Peer Groups

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SOCIAL COMPARISON PROCESSES

IN ADOLESCENT PEER GROUPS

Selected theories in social psychology appeared to deal with processes and dynamics particularly pertinent to adolescence. Leon Festinger's (1950) theory of informal social communication provides a framework which can deal with the processes involved in adolescent attempts to structure a world. It posits that in the absence of a physical reality, people communicate in order to establish a social reality. Several theorems within this broad theory delineate specific processes by which social reality is created. Thus, social comparison theory (1954) provides that in order to evaluate one's own abilities and/or opinions, someone who is judged to be similar is selected for comparison. The theory of cognitive dissonance (1957) posits a need to reduce dissonance and achieve consonance. Affiliation theory (Schachter, 1959) finds the preference to affiliate with others in the same situation to be characteristic of individuals in a situation of uncertainty. It seemed to follow therefore, that the combination of pertinent theories from adolescent psychology and social psychology offered an opportunity to blend the two disciplines into a dialectical field of reference functional to the study of adolescent developmental processes.

Within the framework of social comparison theory, Festinger provides that in order to evaluate one's own abilities and opinions, another judged to be similar is selected for comparison purposes. Festinger's theory itself (a) contends that the need for self evaluation is experienced by each individual, (b) prescribes that the comparison person be perceived as being similar, (c) delineates the direction of comparison. Absence of objective reference points, finding oneself in an anticipatory

situation, are among conditions investigated in post Festinger experiments (Schachter, 1959; Darley and Aaronson, 1966) and delineated as contributing to motivation for social comparison. These postures dovetail closely with descriptions of the adolescent condition.

Our exploratory study of social comparison processes in adolescent males in peer groups has drawn from the above formulations of two discrete bodies of theory in establishing a theoretical framework and in structuring hypotheses. Evaluation of abilities and opinions with a relevant other is seen as essential to the adolescent process of self discovery, self assessment, and self prescription. This paper, therefore, argues that the adolescent within the peer group engages in social comparison to accomplish these ends. Specific categories (types) of comparison are particularly relevant for adolescents and will occur. Consonance and answers are sought; paradoxically, dissonance and further uncertainty may be encountered.

The study explored occurrence of comparative behaviors in the interactions of normally progressing, achieving male adolescents. The predicted comparisons were conceptualized as serving developmental concerns of the specific stage of growth. The first prediction was that comparison behavior would occur in the verbal and non-verbal interactions. The second hypothesis held that social comparison behavior functions in the service of individual evaluation of abilities and/or opinions. Dynamics called forth by achievement concerns were held to orient the individual to upward strivings while dynamics called forth by

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*Remaining hypotheses dealt with predictions regarding cognitive determinants, affective consequences of comparison, reference group impact on comparison behavior, personality variable impact on comparison behavior.

value concerns were held to orient the individual to compare for purposes of self validation. Occurrence of eight types of comparison, reflecting these dynamics, was predicted. The third prediction held that categories (types) of comparison elicited would vary with discussion topic; discussion content would act as determinant.

Method

The research design called for observation of eleven six member discussion groups which would permit the study of verbal and non-verbal comparison behavior of an adolescent sample under controlled conditions. Pilot studies with one hundred students were carried out to refine instruments and establish relevant topics.

Sample

Sample requirements called for participation of young men in an age of transition who were pursuing their goals with continuity and with regularity. Insofar as the processes of social comparison are functional with relation to opinions and abilities, the sample was made up of individuals to whom abilities were important and were, therefore, achieving students. The design, which called for verbal discussion, supported the selection of achieving boys who ranked in the top one third of the senior class over those drawn from a broader range of general scholastic ability. In order to assure the presence of upward, downward, similar other comparison figures, the design further specified that each small discussion group (six subjects) was to include two representatives from each of three perceived scholastic status positions. (In a prior group session in which students were invited to participate in the discussion group, each student had ranked all others as to perceived high-medium-low scholastic status.) Since the school draws from the population of a large eastern seaboard city, rather than from a specific neighborhood, students represented a variety of socio-economic

backgrounds ranging from the professional and business class to the unskilled labor class. (Twenty-six fathers fell into categories one and two of the Hollingshead occupational status scale (1957), twenty-five into categories three and four, eight into categories five, six, seven.* Two fathers were retired two were out of home, one was deceased). Three racial groups (58 Caucasians, five Blacks, three Orientals), five major religions (Buddhist, Catholic, Greek Orthodox, Jewish and Protestant) were represented. Ethnic backgrounds included first generation Armenian, Italian, Ukranian, Russian as well as second and third generation students of Anglo Saxon and Middle European ancestry. Sixty two of sixty six families were intact--both father and mother living at home.

Setting

A conference room was arranged in a manner resembling a den or living room in order to simulate a friendship group as closely as possible. Donuts and standardized topics of conversation served as warmup. Eight minutes of discussion were accorded each of four topics, two of achievement content and two of value content.**

Discussion Format

Topics were rotated in order of presentation for the eleven groups. Each successive group began with the topic which was second for the preceding group. A minimum of one and a maximum of three short probe

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*See A pendix for more specific information on Hollingshead Scale.

**The two achievement related topics were "Pass-Fail" and "Peer Rank". The former related to a possible grading system, the latter to a student administered ranking system. The two value topics were "Straight A-or-All Around Man" and "Friendship". The former related to philosophies of life and the second to definitions and interpretations of friendship.

questions allowed for facilitating discussion of a retiring group. The experimenter participated only in presentation of topics and probe questions from an unobtrusive position in back of the room. Verbal who to whom and non-verbal behavior was observed by pre-trained observers. Interrater reliability was established at 94 percent for verbal observers and 90 percent for non-verbal observers. The sessions were also taped so that records of the complete discussions were available to serve as the basis for coding of social comparison.

Behavioral Measure

Following the discussion period, a bulletin board observation task afforded a behavioral counterpart to verbal comparison. Subjects could choose to look at Scholastic Achievement Test (SAT) performance scores of students from other schools and/or performance scores from the general population. Schools which could be chosen presented opportunities to compare to upward (suburban school of high reputation), downward (inner city school), similar (city school of good reputation), non-similar other (general population), status positions. Observers recorded the number of boards consulted by each subject and length of stay in seconds at each board. Inter-rater reliability had been established at 86 percent.

Measurement of Social Comparison Processes

Five of the eight types of comparison predicted to occur were drawn from existing social psychology research: range finding, comparison with the positive instance, upward comparison, downward comparison,

comparison with a similar other.* Range finding was redefined in relation to the verbal material as range establishment--seen as a form of verbal seeking which takes the form of outlining parameters. In the bulletin board observation task, range was conceptualized in accordance with the formulation in the social comparison literature on range finding--active perceptual seeking.

Two new types of comparison were developed from the theoretical model with specific reference to adolescent motivation and adolescent development; (a) comparison with a goal--intermediate and/or long range--defined as possessing the quality of going beyond daily parameters or time limited status and (b) satiation--an internal resolution of alternatives, manifested by an abatement of the need to compare.** A third type of comparison--comparison with a non similar other--is the converse of comparison with a similar other and occurs as a consequence of sufficient comparison to make a distinction between self and other (it is seen here as complementary to "satiation of comparison" which will

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*Detailed definitions of these types of comparison can be found in the Journal of Experimental Social Psychology (Ed. John Thibaut), Supplement 1, 1966, which is devoted entirely to social comparison research.

**The two newly introduced comparison categories, Comparison with a Goal and Satiation of comparison, are more fully dealt with in Seltzer, V. "An Exploratory Study of the Processes of Social Comparison in Adolescent Peer Groups with Specific Reference to their Function in Development."

be discussed shortly). Miscellaneous comparisons which did not fall within codeable definitions were coded as "Other". The discussions were taped.

Since speaker and person addressed could not be determined from the tapes, this aspect of verbal interaction was recorded by two observers. (Thus, in establishing the category of comparison expressed, verbal interactions of specific students and coding were both considered.) A content analysis of number and categories of comparison was performed. Inter-rater reliability on distinguishing statements containing comparison from statements not containing comparison was 98%; inter-rater reliability on distinguishing types of comparisons was 92%. In addition to the coding of comparisons within one of eight categories (types) of comparison material, comparisons from the interaction observation were coded as DIRECT if they were expressed by one member to another member in the discussion group proper. Comparisons were coded as CONTENT if they were expressed within the content of the contribution but not directly to or about another member of the group. Comparisons were coded as PEER if they referred to a member of any peer reference group and were coded as OTHER if they referred to a member of any other reference group. All comparisons were combined for the various analyses of frequency of occurrence of comparisons.

Results

A one way analysis of variance was computed on each of the eight types of comparisons over the eleven subgroups. No significant differences were found between the groups.

The first prediction that comparison behavior occurs in adolescent peer groups was strongly confirmed. Of the 2,913 verbal statements, 906, or 31.1%, contained statements of comparison.

Insert Table 1 here

While the subjects were free to use any reference figure or group for comparisons, a striking finding was that 90.3% of the comparisons were made with adolescent peers while only 9.7% were with non-peers.

Insert Table 2 here

A surprising finding was that the comparisons were made directly to another member of the immediate six man peer group in only 1.8% of the comparisons; 98.2% of the statements of comparisons were with individuals not present.

Insert Table 3 here

This latter finding may mislead. At first inspection, it may appear as a lack of interest in the immediate group.

However, when considered in connection with the data of Table 2, the immediate group may, in fact, be held in quite the opposite esteem. It may be that it is precisely because of the high level of importance the immediate peers hold for one another that they cannot risk vulnerability and/or exposing selves to one another and risk possible rejection. Comparisons with peers who are not present may afford the opportunity of concentrating on the relevant concerns while running a minimum risk. Implications in the data are strong that relationships with peers must be handled delicately; therefore, what was documented might well have been adoption of a cautionary stance. Findings in Table 4, the total number of comparisons per each separate topic, offer punctuating data. Discussions of the two topics which explicitly involved peers--"Peer Rank" and "Friendship" less total comparisons occurred than in the topics which did not explicitly refer to peers ("Straight A" and "Pass-Fail").

Insert Table 4 here

The second hypothesis predicted occurrence of eight different categories of comparison, reflecting the achievement and value concerns pertinent to adolescents. Table 5 offers findings. A group mean and standard deviation as well as rank order and percent of total comparisons were computed for each of the eight categories of comparison behavior.

Insert Table 5 here

An examination of Table 5 confirms prediction of occurrence of eight categories of comparison behavior. Further examination of the table discloses that downward comparison accounted for 22.9% of the comparisons while comparison with an upward figure (upward comparison) accounting for 19.3%, ranked second. However, if we consider comparison with the positive instance* as an extension of upward comparison, we find that upward comparison accounted for 25.3% and downward for 22.9%. Summing all three, 48.2% of the comparisons had a directional quality. In other words, almost one half of all comparisons verbally expressed focused on whether the comparison object was in a superior or in an inferior position to the speaker. The evaluational function of the comparisons is underscored by this finding.

Yet, if we consider the data from another perspective, the presence of parallel and coextensive needs of the adolescent seem apparent. Achievement needs are reflected in the amount of upward comparison. The

*Conceptually defined for this study as "an individual (or group of individuals) who represents the ultimate condition, achievement or attribute...and which is characterized by a quality of unattainability." For related research which introduces concept of comparison with the "positive instance" see Thornton, D. and Arrowood, J., Journal of Experimental Social Psychology, Supplement 1, pp. 40-48.

high percent of comparison accorded downward objects underscores the counterpart--a need to be simultaneously cognizant of peers who represent the low end of the achievement continuum. (Certainly, for some, comparison with a downward figure may also serve ego defensive needs). The intriguing feature is that both upward and downward comparison occurred in considerable amount and in near proportion. It appears that the adolescents needed to know the parameters of achievement as well as their own relative position; we can infer that familiarity with each of the above elements may be essential to successfully structuring and restructuring appropriate and potentially attainable goals.

Another review of the findings of Table 5 reveals that comparison with a goal, a new category of comparison seen as particularly relevant to adolescent development and introduced here, ranked just under upward and downward comparison (at 15.1%). In the process of completing his adolescent tasks, the adolescent is immersed in evaluating and/or prescribing goals. However, goal related statements at this stage are seen here as more than an estimate of how far am I from the goal. A measurement process of self in relation to one, or to a number of goals, characterizes this stage. These statements reflect a continuous process of "back and forth evaluation" of self in relation to the feasibility and attainability of a specific goal or goals. Therefore, they were conceptualized as a type of comparison--"identification with a future point which possesses the quality of going beyond daily parameters or time limited status". While upward and downward comparison evaluate

subjectively (self in relation to other), goal related comparisons measure more objectively--self or other in relation to an external standard.

The second newly formulated category of comparison-satiation-ranked eighth, occurring 5.1% of the time. Gordon (1966), in his study of influence and social comparison as motives for affiliation, showed that "once an individual is satisfied in the validity of his opinion (and thereby freed of the need for social comparison), there is activated a desire to demonstrate the ability to influence other people", (p. 64). Gordon's conclusions seemed particularly pertinent to the notion of adolescent behavioral process herein conceptualized. It followed for a new category--satiation of the need to compare--to be formulated, tested and introduced. It was defined conceptually as an "internal resolution of alternatives manifested by an abatement of the need to compare. Reflected in a philosophical stance characterized by a reasoned argument on a given issue, a tendency to attempt to influence, a willingness to stand by own position in light of opposition". The data which reveals that satiation of comparison comprised only 5.1% of the comparisons underscores the lack of desire to discontinue, or conversely, the strength of the desire to continue comparing among this group of adolescents.

Findings on the behavioral measure--the bulletin board observation task--lend support to the findings of the verbal data. Table 6 reveals

Insert Table 6 here

that the attention accorded up and down comparisons remained in the same relative proportion over the two independent measures of verbal and non-verbal behavior. (The verbal measure disclosed upward 19.3%; downward 22.9%. The non-verbal showed upward 11.1%; downward, 13.4%). These findings lend additional support to implications that there is a pervasive need to know the parameters of achievement in order to find one's own place within it. The behavioral data of Table 6 also gives strong confirmation to the original Festinger premise of the primacy of the strength of the desire to compare with a person seen as the most similar. Subjects spent 46.5% of their time at the similar other board. The unexpected finding was the length of time spent comparing with the general population--the board conceptualized to represent the non-similar other (24.2%). Possibly the students saw it as an opportunity for comparison with a population which represented a range of abilities. Moreover, in view of the unusual nature of the city-wide sample which drew from assorted religions, races, and ethnic backgrounds, the general population scores may have indeed been perceived as those of similar others. Inspection of Table 7 lends further support to the above findings that adolescents need to compare themselves with a variety of others. Of 60 participants who consulted the board, 51

consulted more than one bulletin board; two thirds of the participants, 40 subjects, consulted at least three boards.

Insert Table 7 here

The third prediction that discussion content (topic) will determine the categories of comparison behavior was confirmed. A repeated measure analysis of variance was computed on the eight types of comparison over four topics. Table 8 presents findings of significant differences in amounts of comparison as between categories of comparison, between topics, and between categories according to topics.

Insert Table 8 here

Table 9 presents specific findings on each category of comparison per topic. Achievement related topics stimulated more evaluational comparisons (up, down, positive instance); value related topics

stimulated more valuational comparisons (similar other, non-similar other).*

Insert Table 9 here

Implications are present for specific investigation into affective consequences of comparison as a determinant of involvement or withdrawl in group discussion.** Increased involvement may result or, by contrast, cease if comparisons become uncomfortable.

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*Researchers had conceived of "Straight A" as a value topic. However, a review of the transcripts of the discussion on Straight A confirmed our hunch that rather than focusing on moral aspects such as philosophies on what makes a worthwhile life, what qualities are instrumental to a full life, whether high school years can be used to lay ground work for these principles, the discussions related primarily to whether or not the outside activities interfere with achievement scholastically. This value topic was handled by students as an achievement topic, eliciting achievement related comparisons.

**Affective consequences of comparison as reflected in non-verbal response is reported in a separate analysis. See Seltzer, V. op. cit.

Conclusions

The findings of this exploratory study confirm prediction of the occurrence of social comparison behavior among male adolescents in peer groups. Comparisons elicited served immediate self-evaluational and self valuational concerns as well as future oriented concerns. The findings emphasize the usefulness of analyses of social comparison behavior in offering perspective which is capable of integrating various formulations in the adolescent literature of functions served by the adolescent peer group. The findings of this study strongly imply that peer group interaction is serious business and that the peer group must be seen as far more than a haven or an island apart. Rather, it should be considered an arena where serious developmental concerns are engaged. While the adolescent may be most vocal regarding his fantasies of a world full of "possibilities", with his peers this same individual is actively engaged in a process of reality testing and measurement of self against relevant others perceived as continuing co-travelers.

In essence, the peer group appears to function as a sorting house characterized by a pulsating, evaluational tempo where subjects use one another not so much to compete as to compare. Peers are almost exclusively the preferred comparison figures. Social comparison processes not only serve to establish parameters which provide a relevant framework in a rather uncertain social reality, but social comparison also offers an avenue to the assessment of self skills and attributes to progression towards realistic, pertinent, and appropriate goals.

Occupational Scale from Hollingshead Two Factor Index of Social Position

1. Higher Executives, Proprietors of Large Concerns, and Major Professionals
2. Business Managers, Proprietors of Medium-Sized Business, and Lesser Professionals
3. Administrative Personnel, Small Independent Businesses, and Minor Professionals
4. Clerical and Sales Workers, Technicians, and Owners of Little Businesses
5. Skilled Manual Employees
6. Machine Operators and Semi-skilled Employees
7. Unskilled Employees

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Table 1

Total and Mean Amount of Contributions; Total and Mean Amount of Contributions Containing Comparisons; Percent of Contributions Containing Comparisons

Type	Total	Mean	Percent
Contributions	2,913	45.52	
Contributions containing comparisons	906	14.16	31.1

Table 2

Amount and Percent of Comparisons According to Reference Group Context

Context	Total	Percent
Peer	1,118	90.3
Other	108	09.7

Table 3

Amount and Percent of Comparisons According to Manner of Direction Expressed

Direction	Amount	Percent
Direct[a]	22	01.8
Content[b]	1,204	98.2

Table 4

Amount of Comparisons per Topic According to Reference Group Context

Topic	Peer	Other
Pass Fail	316	28
Straight A	326	54
Peer Rank	240	15
Friendship	236	11
Total	1,118	108

Table 5

Total, Mean, Standard Deviation, Rank, and Percent of Comparison Behavior for Each of Nine Categories of Comparison

Category	Total	Mean	Standard Dev.	Rank	Percent
Range	152	2.38	2.45	4	12.4
Positive Instance	74	1.18	1.55	7	6.0
Upward	236	3.69	3.57	2	19.3
Downward	281	4.39	4.04	1	22.9
Similar Other	117	1.83	2.03	5	9.5
Non-similar Other	37	.58	0.96	9	3.0
Satiation	63	.98	1.86	8	5.1
Goal	185	2.89	2.96	3	15.1
Other	81	1.27	1.63	6	6.6
Total	1,226				

Table 6

Mean Percent of Time Spent at Each of Four Status

Bulletin Boards, Standard Deviation

School Status						General Population Status	
Upward		Downward		Similar			
Mean %	S.D.	Mean %	S.D.	Mean %	S.D.	Mean %	S.D.
11.10	14.29	13.4	16.35	46.5	29.80	24.2	22.75

Note. Percents do not sum to 100 as some subjects spent zero amount of time at specific boards.

Table 7

Number of Subjects Observing Zero to Four Bulletin Boards

Number of boards observed	0	1	2	3	4
Number of subjects observing	3	6	11	16	24

Note. $n = 60$

Table 8

Analysis of Variance Between Nine Categories of Comparison, Four Topics, and Categories by Topics for Amount of Comparison

Source	Sum of squares	Degrees of freedom	Mean square	F-Ratio	Significance
Category	216.080	8	27.010	30.835	.000
Topic	22.498	3	7.499	8.016	.000
Topic by Category	145.531	24	6.606	8.860	.000

Table 9

Total, Mean, Standard Deviation of Each Category of Comparison per Topic

	Pass Fail			Straight A			Peer Rank			Friendship		
Category	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD	Total	Mean	SD
Range	26	0.41	0.67	33	0.52	1.01	35	0.55	0.83	58	0.91	1.22
Positive Instance	12	0.19	0.43	43	0.67	1.20	15	0.23	0.56	4	0.06	0.24
Upward	67	1.05	1.34	85	1.33	1.66	61	0.95	1.40	23	0.36	0.78
Downward	80	1.25	1.40	81	1.27	1.76	81	1.27	1.42	39	0.61	1.08
Similar Other	24	0.38	0.72	20	0.31	0.71	11	0.17	0.46	62	0.97	1.25
Non-similar Other	5	0.08	0.32	4	0.06	0.24	2	0.03	0.18	26	0.41	0.83
Satiation	19	0.30	0.77	26	0.41	0.87	5	0.07	0.41	13	0.20	0.62
Goal	81	1.27	1.51	72	1.13	1.49	24	0.38	0.77	8	0.13	0.38
Other	30	0.47	1.0	16	0.25	0.54	21	0.33	0.70	14	0.22	0.45